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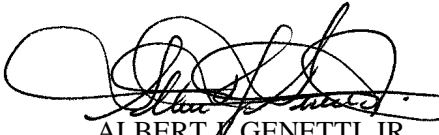
Manual
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Engineering and Design
CATHODIC PROTECTION SYSTEMS FOR CIVIL WORKS STRUCTURES

- 1. Purpose.** This manual provides guidance for the selection, design, installation, operation, and maintenance of cathodic protection systems (CPS's) for navigation lock gates and other civil works hydraulic structures.
- 2. Applicability.** This manual applies to all USACE Commands having civil works responsibilities.
- 3. Discussion.** The primary corrosion control method for civil works hydraulic structures is a protective coating system, most often paint. Where the paint system and structure are submerged in water, a combination of the anodic and cathodic properties of materials, the liquid electrolyte, and external electrical circuits combine to form electrochemical corrosion cells, and corrosion naturally follows. CPS's can supplement the paint coating system to mitigate corrosion damage.
- 4. Distribution.** Approved for public release; distribution is unlimited.

FOR THE COMMANDER:


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